Authors, Titles, and Subjects in *Marine Fisheries Review* Volume 40, Numbers 1-12, 1978

Indexed here by author, title, and subject are the papers which appeared in *Marine Fisheries Review* in 1978. A list of these papers, in numerical order, appears at the end of the Index. Entries are indexed by number and page (i.e., 7:12 indicates the July number, page 12).

Anonymous notes, news articles, and regular departments are not indexed.

A

Aequipecten irradians—see Scallop, bay
Aeromonas salmonicida
  bacterins
    used in fish immunization, 3:12
Alaska, southeastern
  herring roe gillnet fishery, 1976
    economic aspect of development, 4:25
Alosa sapidissima—see Shad, American
"(An) analysis of the charter boat fishing industry on the Texas Gulf Coast," by Robert B. Ditton, Richard N. Jarman, and Steve A. Woods, 8:1
Anaerobic bacteria
  disease agents in fish, 10:10
"Anaerobic bacteria as possible disease agents in fish," by Lanny R. Udey, 10:10
"Annotated bibliography on lobster trapping and related subjects," by Ronald Joel Smolowitz, 5-6:68
Argopecten gibbus—see Scallop, calico
"(The) Atlantic halibut and it utilization," by J. R. T. Nickerson, 7:21
Atwater, W. O.
  chemical composition of fish, 7:1
Austen, Jack D.—see McConnell and Austen

B

Bacterial diseases—see Diseases, bacterial
"Bacterial diseases of fishes and their control," by S. F. Snieszko, 10:2
"Bacteriologic studies of Long Island shellfish hatcheries: An abstract," by Louis Leibovitz, 10:8
Balaena mysticetus—see Whale, bowhead
Ballard, Kenneth, and Vito Blomo, "Estimating the structure of capacity utilization in the fishing industry," 8:29
Barnett, Harold J., Richard W. Nelson, Patrick J. Hunter, and Herman Groninger, "Use of carbon dioxide dissolved in refrigerated brine for the preservation of pink shrimp (*Pandalus* spp.)," 9:24
Barrow, Alaska
  whale, bowhead
    1976 catch by Eskimos, 11:23, 25
Bass, striped
  Pacific Northwest commercial fishery, 1922-74
    commercial fishery, 1:18
    fish introduction and range extension, 1:18
    species description, 1:18
    trends, 1:20
Bauersfeld, Paul E., Jr.—see Hale and Bauersfeld
Bayer, Robert C., Margie Lee Gallagher, and Dale F. Leavitt, "Nutrient requirement of the lobster and nutrition pathology," 10:44
Blomo, Vito—see Ballard and Blomo
———, Wade L. Griffin, and John P. Nichols, "Catch-effort and price-cost trends in the Gulf of Mexico shrimp fishery: Implications on Mexico's extended jurisdiction," 8:24
Blott, Alan J., "A preliminary study of timed release mechanisms for lobster traps," 5-6:44
Blue, Jack L.—see Gratzek et al.
"Blue crab larval culture: Methods and management," by Mark R. Millikin, 11:10
Bowser, P. R.—see Plumb and Bowser
British Columbia
  American shad, history of commercial fishery, 2:29
Brown, Albert L., "Immunity and practical vaccine development," 3:2
Brown, C.—see Robohm and Brown
Busch, R. A., "Enteric red mouth disease (Hagerman Strain)," 3:42
Buzzell, David H.—see Sidwell et al.

C

Caillouet, Charles W., and Frank J. Patella, "Relationship between size composition and ex-vessel value of reported shrimp catches from two Gulf Coast States with different harvesting strategies," 2:14
California
  oceanographic conditions, summer 1977, 2:24
Callinectes sapidus—see Crab, blue
Carver, J. H.—see Ronsivalli et al.
"Catch-effort and price-cost trends in the Gulf of Mexico shrimp fishery: Implications on Mexico's extended jurisdiction," by Vito Blomo, Wade L. Griffin, and John P. Nichols, 8:24
Catfish, channel
  immunization against two bacterial diseases, 3:18
  serological screening of virus, 3:30
  virus disease epizootiology
    cell culture characteristics, 3:28
    clinical signs and pathogenesis, 3:27
    control, 3:29
    immunological response, 3:28
    morphology and biophysical nature, 3:28
    transmission, 3:26
  virus replication
    phosphonoacetic acid inhibition of, 10:24
  virus research, recent developments, 10:12
"Cellular immunity in fish as measured by lymphocyte stimulation," by M. Michael Sigel, John C. Lee, E. Churchill McKinney, and Diana M. Lopez, 3:6
Celtic Sea
  herring stocks
    status, fished by the Federal Republic of Germany fleet, 4:22
Channel catfish virus disease—see Catfish, channel
"Characteristics, participation, and motivations of Texas charter boat fishermen," by Robert B. Ditton, Thomas J. Mertens, and Martin P. Schwartz, 8:8
"Charles Woods, pioneer scientist on chemical composition of fish," by Maurice E. Stansby, 7:1
Chelonia mydas—see Turtle, green sea
Cheng, Thomas C., "Larval nematodes parasitic in shellfish," 10:39
Clifford, R. A.—see Pecci et al.
Clupea harengus—see Herring roe
Cod, Atlantic
  piscine erythrocytic necrosis (PEN), 10:16
"Comments on trends in research on parasitic diseases of shellfish and fish," by Victor Sprague, 10:26
"Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. III. Microelements," by Virgnia D. Sidwell, Audrey L. Loomis, Karen J. Loomis, Pauline R. Foncannon, and David H. Buzzell, 9:1
"Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. IV. Vitamins," by Virginia D. Sidwell, Audrey L. Loomis, Pauline R. Foncannon, and David H. Buzzell, 12:1
"(A) concept for assuring the quality of seafoods to consumers." by L. J. Ronsivalli, C. Gorga, J. D. Kaylor, and J. H. Carver, 1:1
Contaminants—see Pollutants
"Control of fish diseases," by S. F. Snieszko, 3:65
Cooper, R. A.—see Pecci et al.
Crab, blue
  larval culture
    egg development in vitro, 11:11
    egg mass: age and disease, 11:11
    feed organisms, culture, 11:13
    feeding, 11:12
    holding tanks for mass culture, 11:13
    mating and spawning, 11:10
    survival in natural vs artificial systems, 11:10
    water quality, characteristics, and optimal parameters, 11:11
  viral diseases of, 10:13
Crab, portunid
  Portunus spinimanus
    U.S. Virgin Islands, resource potential in, 7:12
Creamer, Donn L.—see Slabyj et al.
Crustaceans
  composition of edible portion of raw (fresh or frozen)
    aluminum, 9:1
    arsenic, 9:1
    ascorbic acid, 12:1
    barium, 9:1
    biotin, 12:1
    cadmium, 9:1
    choline, 12:1
    chromium, 9:1
    cobalt, 9:1
    copper, 9:1
    fluorine, 9:1
    folic acid, 12:1
    inositol, 12:1
    iodine, 9:1

Authors, Titles, and Subjects in *Marine Fisheries Review* Volume 40, Numbers 1-12, 1978

Indexed here by author, title, and subject are the papers which appeared in *Marine Fisheries Review* in 1978. A list of these papers, in numerical order, appears at the end of the Index. Entries are indexed by number and page (i.e., 7:12 indicates the July number, page 12).

Anonymous notes, news articles, and regular departments are not indexed.

A

Aequipecten irradians—see Scallop, bay
Aeromonas salmonicida
  bacterins
    used in fish immunization, 3:12
Alaska, southeastern
  herring roe gillnet fishery, 1976
    economic aspect of development, 4:25
Alosa sapidissima—see Shad, American
"(An) analysis of the charter boat fishing industry on the Texas Gulf Coast," by Robert B. Ditton, Richard N. Jarman, and Steve A. Woods, 8:1
Anaerobic bacteria
  disease agents in fish, 10:10
"Anaerobic bacteria as possible disease agents in fish," by Lanny R. Udey, 10:10
"Annotated bibliography on lobster trapping and related subjects," by Ronald Joel Smolowitz, 5-6:68
Argopecten gibbus—see Scallop, calico
"(The) Atlantic halibut and it utilization," by J. R. T. Nickerson, 7:21
Atwater, W. O.
  chemical composition of fish, 7:1
Austen, Jack D.—see McConnell and Austen

B

Bacterial diseases—see Diseases, bacterial
"Bacterial diseases of fishes and their control," by S. F. Snieszko, 10:2
"Bacteriologic studies of Long Island shellfish hatcheries: An abstract," by Louis Leibovitz, 10:8
Balaena mysticetus—see Whale, bowhead
Ballard, Kenneth, and Vito Blomo, "Estimating the structure of capacity utilization in the fishing industry," 8:29
Barnett, Harold J., Richard W. Nelson, Patrick J. Hunter, and Herman Groninger, "Use of carbon dioxide dissolved in refrigerated brine for the preservation of pink shrimp (*Pandalus* spp.)," 9:24
Barrow, Alaska
  whale, bowhead
    1976 catch by Eskimos, 11:23, 25
Bass, striped
  Pacific Northwest commercial fishery, 1922-74
    commercial fishery, 1:18
    fish introduction and range extension, 1:18
    species description, 1:18
    trends, 1:20
Bauersfeld, Paul E., Jr.—see Hale and Bauersfeld
Bayer, Robert C., Margie Lee Gallagher, and Dale F. Leavitt, "Nutrient requirement of the lobster and nutrition pathology," 10:44
Blomo, Vito—see Ballard and Blomo
———, Wade L. Griffin, and John P. Nichols, "Catch-effort and price-cost trends in the Gulf of Mexico shrimp fishery: Implications on Mexico's extended jurisdiction," 8:24
Blott, Alan J., "A preliminary study of timed release mechanisms for lobster traps," 5-6:44
Blue, Jack L.—see Gratzek et al.
"Blue crab larval culture: Methods and management," by Mark R. Millikin, 11:10
Bowser, P. R.—see Plumb and Bowser
British Columbia
  American shad, history of commercial fishery, 2:29
Brown, Albert L., "Immunity and practical vaccine development," 3:2
Brown, C.—see Robohm and Brown
Busch, R. A., "Enteric red mouth disease (Hagerman Strain)," 3:42
Buzzell, David H.—see Sidwell et al.

C

Caillouet, Charles W., and Frank J. Patella, "Relationship between size composition and ex-vessel value of reported shrimp catches from two Gulf Coast States with different harvesting strategies," 2:14
California
  oceanographic conditions, summer 1977, 2:24
Callinectes sapidus—see Crab, blue
Carver, J. H.—see Ronsivalli et al.
"Catch-effort and price-cost trends in the Gulf of Mexico shrimp fishery: Implications on Mexico's extended jurisdiction," by Vito Blomo, Wade L. Griffin, and John P. Nichols, 8:24
Catfish, channel
  immunization against two bacterial diseases, 3:18
  serological screening of virus, 3:30
  virus disease epizootiology
    cell culture characteristics, 3:28
    clinical signs and pathogenesis, 3:27
    control, 3:29
    immunological response, 3:28
    morphology and biophysical nature, 3:28
    transmission, 3:26
  virus replication
    phosphonoacetic acid inhibition of, 10:24
  virus research, recent developments, 10:12
"Cellular immunity in fish as measured by lymphocyte stimulation," by M. Michael Sigel, John C. Lee, E. Churchill McKinney, and Diana M. Lopez, 3:6
Celtic Sea
  herring stocks
    status, fished by the Federal Republic of Germany fleet, 4:22
Channel catfish virus disease—see Catfish, channel
"Characteristics, participation, and motivations of Texas charter boat fishermen," by Robert B. Ditton, Thomas J. Mertens, and Martin P. Schwartz, 8:8
"Charles Woods, pioneer scientist on chemical composition of fish," by Maurice E. Stansby, 7:1
Chelonia mydas—see Turtle, green sea
Cheng, Thomas C., "Larval nematodes parasitic in shellfish," 10:39
Clifford, R. A.—see Pecci et al.
Clupea harengus—see Herring roe
Cod, Atlantic
  piscine erythrocytic necrosis (PEN), 10:16
"Comments on trends in research on parasitic diseases of shellfish and fish," by Victor Sprague, 10:26
"Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. III. Microelements," by Virgnia D. Sidwell, Audrey L. Loomis, Karen J. Loomis, Pauline R. Foncannon, and David H. Buzzell, 9:1
"Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. IV. Vitamins," by Virginia D. Sidwell, Audrey L. Loomis, Pauline R. Foncannon, and David H. Buzzell, 12:1
"(A) concept for assuring the quality of seafoods to consumers." by L. J. Ronsivalli, C. Gorga, J. D. Kaylor, and J. H. Carver, 1:1
Contaminants—see Pollutants
"Control of fish diseases," by S. F. Snieszko, 3:65
Cooper, R. A.—see Pecci et al.
Crab, blue
  larval culture
    egg development in vitro, 11:11
    egg mass: age and disease, 11:11
    feed organisms, culture, 11:13
    feeding, 11:12
    holding tanks for mass culture, 11:13
    mating and spawning, 11:10
    survival in natural vs artificial systems, 11:10
    water quality, characteristics, and optimal parameters, 11:11
  viral diseases of, 10:13
Crab, portunid
  Portunus spinimanus
    U.S. Virgin Islands, resource potential in, 7:12
Creamer, Donn L.—see Slabyj et al.
Crustaceans
  composition of edible portion of raw (fresh or frozen)
    aluminum, 9:1
    arsenic, 9:1
    ascorbic acid, 12:1
    barium, 9:1
    biotin, 12:1
    cadmium, 9:1
    choline, 12:1
    chromium, 9:1
    cobalt, 9:1
    copper, 9:1
    fluorine, 9:1
    folic acid, 12:1
    inositol, 12:1
    iodine, 9:1

iron, 9:1
lead, 9:1
manganese, 9:1
mercury, 9:1
mercury, organic, 9:1
molybdenum, 9:1
niacin, 12:1
nickel, 9:1
pantothenic acid, 12:1
pyridoxine, 12:1
riboflavin, 12:1
selenium, 9:1
silver, 9:1
thiamin, 12:1
tin, 9:1
vanadium, 9:1
vitamin A, 12:1
vitamin B_{12}, 12:1
vitamin D, 12:1
vitamin E, 12:1
zinc, 9:1
Crustaceans, decapod—see Decapods

D

Damann, Arthur E.—see Olsen et al.
Decapods
protozoan diseases of, 10:32
Disease
lobster
Homarus americanus, 10:14
Diseases
environmentally related
fish and shellfish, 10:43
teleost liver, PCB-induced alterations in
model for environmental disease in fish, 10:47
Diseases, bacterial
anaerobic
disease agents in fish, 10:10
fish
control of, 10:2
shellfish hatcheries, Long Island
bacteriologic studies, 10:8
Diseases, parasitic
shellfish
larval nematodes in, 10:39
shellfish and fish
research, comments on trends, 10:26
warm-water fishes, 10:36
Diseases, protozoan
crustaceans, decapod, 10:32
"Diseases and defense mechanisms of the lobster, *Homarus americanus*," by James E. Stewart, 10:4
Ditton, Robert B., Richard N. Jarman, and Steve A. Woods, "An analysis of the charter boat fishing industry on the Texas Gulf Coast," 8:1
———, Thomas J. Mertens, and Martin P. Schwartz, "Characteristics, participation, and motivations of Texas charter boat fishermen," 8:8
Dornheim, Holger, "Status of the herring stocks fished by the Federal Republic of Germany fleet," 4:21

E

"Economic aspects of the development of the herring roe gillnet fishery, southeastern Alaska, 1976," by Howard O. Ness, 4:25
Eels
catching and preparation methods, 4:1
life history, 4:1
world demand, 4:1
"Eels and their utilization," by J. Perry Lane, 4:1
"(The) effects of different escape vents on the selectivity of lobster traps," by Vernon E. Nulk, 5-6:50
Elliott, Diane, "Fish disease inspection and certification," 3:69
Enteric red mouth disease
Hagerman strain
agglutination test, passive, 3:47
asymptomatic disease carrier state, 3:45
carrier identification, 3:47
carrier infections, cyclical nature, 3:47
causative organism, 3:43
clinical signs and pathology, 3:43
economic effects, 3:43
epidemiology, 3:42
induced humoral immune response, 3:49
mortality and transmission, 3:43
"Enteric red mouth disease (Hagerman strain)," by R. A. Busch, 3:42
"Environmental parameters affecting fish physiology in water reuse systems," by Thomas L. Meade, 10:46
"Environmentally related diseases of marine fish and shellfish," by Carl J. Sindermann, 10:43
"Epizootiology of channel catfish virus disease," by John A. Plumb, 3:26
"Estimating the structure of capacity utilization in the fishing industry," by Kenneth Ballard and Vito Blomo, 8:29

F

Farley, C. Austin, "Virus and viruslike lesions in marine mollusks," 10:18
Federal Republic of Germany
herring stocks, status, 4:21
Finfish
composition of edible portion of raw (fresh or frozen)
aluminum, 9:1
arsenic, 9:1
ascorbic acid, 12:1
barium, 9:1
biotin, 12:1
cadmium, 9:1
choline, 12:1
chromium, 9:1
cobalt, 9:1
copper, 9:1
fluorine, 9:1
folic acid, 12:1
inositol, 12:1
iodine, 9:1
iron, 9:1
lead, 9:1
manganese, 9:1
mercury, 9:1
mercury, organic, 9:1
molybdenum, 9:1
niacin, 12:1
nickel, 9:1
pantothenic acid, 12:1
pyridoxine, 12:1
riboflavin, 12:1
selenium, 9:1
silver, 9:1
thiamin, 12:1
tin, 9:1
vanadium, 9:1
vitamin A, 12:1
vitamin B_{12}, 12:1
vitamin D, 12:1
vitamin E, 12:1
zinc, 9:1
Fish
bacterial disease, control of, 10:2
chemical composition of, 7:1
preparation, 1:5
Fish, freshwater
parasitic diseases
cestodes, 3:57
crustaceans, 3:57
nematodes, 3:57
protozoans, 3:56
trematodes, 3:57
Fish, ornamental
diseases and problems
bacteriological examination and results, 3:58, 59
parasitiological examination and results, 3:58, 59
virological examination and results, 3:59, 60
Fish, warmwater
disease incidence on farms in south-central United States
antibiotics used as prophylactics, 3:40
bacterial infection and oxygen depletion incidence, 3:38
disease incidence, 3:38
protozoan infection incidence, 3:38
treatment delivery system, 3:40
parasitic diseases, 10:36
"Fish disease inspection and certification," by Diane Elliott, 3:69
Fish diseases
anaerobic bacteria, possible disease agents, 10:10
bacterial, control of, 10:2
control
chemoprophylaxis, 3:67
chemotherapy effectiveness, 3:67
drug administration, 3:65
drugs commonly used, 3:65
parasite control, 3:67
relationship of host, pathogen, and environment, 3:65
environmentally related, 10:43
inspection and certification
bacterial, 3:70
diagnostic examination of fish, 3:71
parasitic, 3:70
sampling, 3:69
viral, 3:69
model for environmental
teleost liver, PCB-induced alterations in, 10:47
parasitic, 10:36
parasitic
research, comments on trends, 10:26
Fish flavors
petroleum pickup
nature, 1:13
research, 1:14
Fish immunization
Aeromonas salmonicida bacterins
aggregating and nonaggregating strains, 3:12
vaccines, 3:15
virulence of strains, 3:13
Fish physiology
environmental parameters affecting
water reuse systems, 10:46
Fish traps
West Indian, mesh selectivity of, 7:15
Fishermen, Texas charter boat
characteristics, participation, and motivations
fishing motivations, analysis, 8:11
fishing motivations, understanding, 8:10
group types, 8:10
motives, importance, 8:11
population, study, 8:9
recreational fishing backgrounds and participation, 8:9
sociodemographic characteristics, 8:9
Fishing industry
estimating structure of capacity utilization
economic capacity, 8:29
engineering capacity, 8:29
harvesting sector, 8:31
price-capacity utilization relationships, 8:32

processing sector, 8:31
theoretical background, 8:30
Fishing industry, charter boat
Texas Gulf Coast
business characteristics, 8:3
financial information, 8:5
fishing activities, 8:4
operators, 8:3
organization, 8:2
Flatfish
ulcer cause, presumptive *Vibrio* species, 10:5
"Flavors in fish from petroleum pickup," by Maurice E. Stansby, 1:13
Foncannon, Pauline R.—see Sidwell et al.
Fryer, J. L.—see Udey and Fryer
———, J. S. Rohovec, and R. L. Garrison, "Immunization of salmonids for control of vibriosis," 3:20
Furunculosis
Puget Sound, Washington
salmon, marine cultured, 3:52

G

Gallagher, Margie Lee—see Bayer et al.
Gardner, George R., "A review of histopathological effects of selected contaminants on some marine organisms," 10:51
Garrison, R. L.—see Fryer et al.
Georges Bank
herring stocks
status, fished by the Federal Republic of Germany fleet, 4:23
sea scallop, resources 1975
distribution and abundance, 2:20
length frequency, 2:22
spawning season, 2:20
"Ghost fishing of vented and unvented lobster, *Homarus americanus*, traps," by K. J. Pecci, R. A. Cooper, C. D. Newell, R. A. Clifford, and R. J. Smolowitz, 5-6:9
Gorga, L. J.—see Ronsivalli et al.
Gratzek, John B., Emmett B. Shotts, and Jack L. Blue, "Ornamental fish: Diseases and problems," 3:58
Griffin, Wade L.—see Blomo et al.
Groninger, Herman—see Barnett et al.
Gulf Coast
shrimp catches, Texas and Louisiana
size composition , effect on ex-vessel value, 2:14
Gulf of Mexico
shrimp fishery, catch-effort and price-cost trends
Mexico, implications on extended jurisdiction, 8:24

H

Haines, Harold, "A herpesvirus disease of green sea turtles in aquaculture," 3:33
Hale, Malcolm B., and Paul E. Bauersfeld, Jr., "Preparation of a menhaden hydrolysate for possible use in a milk replacer," 8:14
Halibut, Atlantic
utilization, 7:21
Harrell, Lee W., "Vibriosis and current salmon vaccination procedures in Puget Sound, Washington," 3:24
Hebrides
herring stocks
status, fished by the Federal Republic of Germany fleet, 4:23
"(A) herpesvirus disease of green sea turtles in aquaculture," by Harold Haines, 3:33
Herring
status, fished by Federal Republic of Germany fleet, 4:21
Herring roe
gillnet fishery, southeastern Alaska, 1976
economic aspects of development, 4:25
Hinton, David E., James E. Klaunig, and Michael M. Lipsky, "PCB-induced alterations in teleost liver: A model for environmental disease in fish," 10:47
Hippoglossus hippoglossus—see Halibut, Atlantic
Homarus americanus—see Lobster, American
Hunter, Patrick J.—see Barnett et al.
Hutchinson, Roger W., "Status and problems of the American shrimp industry," 9:29

I

Ictalurus punctatus—see Catfish, channel
Illex illecebrosus—see Squid, shortfin
Immunity
vaccine development, 3:2
Immunity, cellular
fish, as measured by lymphocyte stimulation
evidence that antibodies can regulate lymphocyte responses, 3:8
immune responses, regulation, 3:7
immunoglobulins, 3:7
immunologic response, 3:7
suppressor cells, 3:10
"Immunity and practical vaccine development," by Albert L. Brown, 3:2
"Immunization of channel catfish, *Ictalurus punctatus*, against two bacterial diseases," by John H. Schachte, Jr., 3:18
"Immunization of fish with bacterins of *Aeromonas salmonicida*," by L. R. Udey and J. L. Fryer, 3:12
"Immunization of salmonids for control of vibriosis," by J. L. Fryer, J. S. Rohovec, and R. L. Garrison, 3:20
"Incidence of disease in warmwater fish farms in the south-central United States," by F. P. Meyer, 3:38
Ingraham, W. James, Jr., and Cuthbert M. Love, "Oceanographic conditions off California to Vancouver Island in the summer of 1977," 2:24

J

Jarman, Richard N.—see Ditton et al.
Johnson, Phyllis T., "Viral diseases of the blue crab, *Callinectes sapidus*," 10:13

K

Kaktovik, Alaska
whale, bowhead
1976 catch by Eskimos, 11:27
Kaylor, J. D.—see Ronsivalli et al.
Kivalina, Alaska
whale, bowhead
1976 catch by Eskimos, 11:22
Klaunig, James E.—see Hinton et al.
Koment, Roger W., "Phosphonoacetic acid inhibition of channel catfish virus replication," 10:24

L

Lane, J. Perry, "Eels and their utilization," 4:1
LaPlace, Joseph A.—see Olsen et al.
"Larval nematodes parasitic in shellfish," by Thomas C. Cheng, 10:39
Leavitt, Dale F.—see Bayer et al.
Lee, John C.—see Sigel et al.
Leibovitz, Louis, "Bacteriolgic studies of Long Island shellfish hatcheries: An abstract," 10:8
———, "Shellfish diseases," 3:61
Lind, H. F.—see Lux et al.
Lipsky, Michael M.—see Hinton et al.
Lobster
Homarus americanus
diseases and defense mechanisms of, 10:4
nutrient requirement and nutrition pathology, 10:44
Lobster, American
ghost fishing of vented and unvented traps, 5-6:9
Long Island
shellfish hatcheries
bacteriologic studies, 10:8
Loomis, Audrey L.—see Sidwell et al.
Loomis, Karen J.—see Sidwell et al.
Lopez, Diana M.—see Sigel et al.
Louisiana
shrimp catches
size composition, effect on ex-vessel value, 2:14
Love, Cuthbert M.—see Ingraham and Love
Lux, F. E., J. R. Uzmann, and H. F. Lind, "Strandings of shortfin squid, *Illex illecebrosus*, in New England in fall 1976," 1:21

M

McAllister, Philip E., "Viruses and virus diseases of salmonid fishes," 10:21
McConnell, Stewart, and Jack D. Austen, "Serological screening of channel catfish virus," 3:30
MacLean, Sharon A.—see Sawyer and MacLean
MacKenzie, Clyde L., Jr., Arthur S. Merrill, and Fredric M. Serchuk, "Sea scallop resources off the northeastern U.S. coast," 2:19
McKinney, E. Churchill—see Sigel et al.
Maine
salmonids
vibriosis in, 10:9
Marquette, Willman M., "The 1976 catch of bowhead whales, *Balaena mysticetus*, by Alaskan Eskimos," 11:18
Meade, Thomas L., "Environmental parameters affecting fish physiology in water reuse systems," 10:46
Menhaden
hydrolysate
preparation of, for possible use in a milk replacer, 8:14
Merrill, Arthur S.—see MacKenzie et al.
Mertens, Thomas J.—see Ditton et al.
"Mesh selectivity of West Indian fish traps," by David A. Olsen, Arthur E. Dammann, and Joseph A. LaPlace, 7:15
Mexico
catch-effort and price-cost trends in Gulf of Mexico shrimp fishery
extended jurisdiction implications, 8:24
Meyer, F. P., "Incidence of disease in warmwater fish farms in the south-central United States," 3:38
Middle Atlantic Shelf
sea scallop, resources 1975
distribution and abundance, 2:21
length frequency, 2:22
Milk replacer
preparation of menhaden hydrolysate for possible use in, 8:14
Milliken, Mark R., "Blue crab larval culture: Methods and management," 11:10
Mollusks
composition of edible portion of raw (fresh or frozen)
aluminum, 9:1
arsenic, 9:1
ascorbic acid, 12:1
barium, 9:1
biotin, 12:1
cadmium, 9:1
choline, 12:1
chromium, 9:1
cobalt, 9:1
copper, 9:1
fluorine, 9:1
folic acid, 12:1
inositol, 12:1
iodine, 9:1
iron, 9:1
lead, 9:1
manganese, 9:1

mercury, 9:1
mercury, organic, 9:1
molybdenum, 9:1
niacin, 12:1
nickel, 9:1
pantothenic acid, 12:1
pyridoxine, 12:1
riboflavin, 12:1
selenium, 9:1
silver, 9:1
thiamin, 12:1
tin, 9:1
vanadium, 9:1
vitamin A, 12:1
vitamin B_{12}, 12:1
vitamin D, 12:1
vitamin E, 12:1
zinc, 9:1
Mollusks, marine
viruses and viruslike lesions, 10:18
Morone saxatilis—see Bass, striped
Mussel, blue
cultivated and natural stocks
seasonal effect on yield, proximate composition, and quality of meats, 8:18
Mytilus edulis—see Mussel, blue

N

Nelson, Richard W.—see Barnett et al.
Nematodes
larval, parasitic in shellfish, 10:39
Ness, Howard O., "Economic aspects of the development of the herring roe gillnet fishery, southeastern Alaska, 1976," 4:25
"(A) new bacterium (presumptive *Vibrio* species) causing ulcers in flatfish," by R. A. Robohm and C. Brown, 10:5
New Hampshire
salmonids
vibriosis in, 10:9
Newell, C. D.—see Pecci et al.
Nichols, John P.—see Blomo et al.
Nicholson, Bruce L.—see Reno et al.
Nickerson, J. T. R., "The Atlantic halibut and its utilization," 7:21
"(The) 1976 catch of bowhead whales, *Balaena mysticetus*, by Alaskan Eskimos," by Willman M. Marquette, 11:18
North Sea
herring stocks
status, fished by the Federal Republic of Germany fleet, 4:21
Norwegian Sea
herring stocks
status, fished by the Federal Republic of Germany fleet, 4:23
Novotny, Anthony J., "Vibriosis and furunculosis in marine cultured salmon in Puget Sound, Washington," 3:52
Nuiqsut, Alaska
whale, bowhead
1976 catch by Eskimos, 11:27
Nulk, Vernon E., "The effects of different escape vents on the selectivity of lobster traps," 5-6:50
"Nutrient requirement of the lobster and nutrition pathology," by Robert C. Bayer, Margie Lee Gallagher, and Dale F. Leavitt, 10:44
Nutrition
lobster
requirement and pathology, 10:44

O

"Oceanographic conditions off California to Vancouver Island in the summer of 1977," by W. James Ingraham, Jr. and Cuthbert M. Love, 2:24
O'Grodnick, Joseph, "Susceptibility studies of various salmonids to whirling disease: Histological staining and spore concentration procedures," 10:30
Olsen, David A., Arthur E. Dammann, and Joseph A. LaPlace, "Mesh selectivity of West Indian fish traps," 7:15
———, ———, and ———, "*Portunus spinimanus* Latreille, a portunid crab with resource potential in the U.S. Virgin Islands," 7:12
Oregon
American shad, history of commercial fishery, 2:29
oceanographic conditions, summer 1977, 2:24
"Ornamental fish: Diseases and problems," by John B. Gratzek, Emmett B. Shotts, and Jack L. Blue, 3:58
Overstreet, Robin M., "Trypanorhynch infections in the flesh of sciaenid fishes," 10:37

P

Pacific Northwest
American shad, history of commercial fishery, 2:29
sturgeon, commercial fishery, 7:17
"(The) Pacific Northwest commercial fishery for American shad," by Norman B. Parks, 2:29
"(The) Pacific Northwest commercial fishery for striped bass, 1922-74," by Norman B. Parks, 1:18
"(The) Pacific Northwest commercial fishery for sturgeon," by Norman B. Parks, 7:17
"Parasitic diseases of freshwater fishes," by W. A. Rogers, 3:56
Parasitic diseases—see Diseases, parasitic
Parks, Norman B. "The Pacific Northwest commercial fishery for American shad," 2:29
———, "The Pacific Northwest commercial fishery for striped bass, 1922-74," 1:18
———, "The Pacific Northwest commercial fishery for sturgeon," 7:17
Patella, Frank J.—see Caillouet and Patella
Patinopecten caurinus—see Scallop, Pacific sea
"PCB-induced alterations in teleost liver: A model for environmental disease in fish," by David E. Hinton, James E. Klaunig, and Michael M. Lipsky, 10:47
Pecci, K. J., R. A. Cooper, C. D. Newell, R. A. Clifford, and R. J. Smolowitz, "Ghost fishing of vented and unvented lobster, *Homarus americanus*, traps," 5-6:9
Penaeus aztecus—see Shrimp, brown
Penaeus setiferus—see Shrimp, white
Peters, John A., "Scallops and their utilization," 11:1
Philippon-Fried, Marie—see Reno et al.
Phosphonoacetic acid
inhibition of virus replication in channel catfish, 10:24
"Phosphonoacetic acid inhibition of channel catfish virus replication," by Roger W. Koment, 10:24
Piscine erythrocytic necrosis
cod, Atlantic, 10:16
"Piscine erythrocytic necrosis (PEN): A viral infection of the Atlantic cod and other marine fishes," by Paul Reno, Marie Philippon-Fried, Bruce L. Nicholson, and Stuart Sherburne, 10:16
Placopecten magellanicus—see Scallop, sea
Plumb, John A., "Epizootiology of channel catfish virus disease," 3:26
———, and P. R. Bowser, "Recent developments in channel catfish virus research," 10:12
Point Hope, Alaska
whale, bowhead
1976 catch by Eskimos, 11:22
Pollutants
histopathological effects on marine organisms, 10:51
"*Portunus spinimanus* Latreille, a portunid crab with resource potential in the U.S. Virgin Islands," by David A. Olsen, Arthur E. Dammann, and Joseph A. LaPlace, 7:12
Portunus spinimanus—see Crab, portunid
"(A) preliminary study of timed release mechanisms for lobster traps," by Alan J. Blott, 5-6:44
"Preparation of a menhaden hydrolysate for possible use in a milk replacer," by Malcolm B. Hale and Paul E. Bauersfeld, Jr., 8:14
"Preparation of fish fillet blocks," by John J. Ryan, 1:5
"(The) principal parasitic diseases of warm-water fishes," by W. A. Rogers, 10:36
Protozoan diseases—see Diseases, protozoan
Puget Sound, Washington
vibriosis and current salmon vaccination procedures, 3:24

R

"Recent developments in channel catfish virus research," by J. A. Plumb and P. R. Bowser, 10:12
"Relationship between size composition and ex-vessel value of reported shrimp catches from two Gulf Coast States with different harvesting strategies," by Charles W. Caillouet and Frank J. Patella, 2:14
Reno, Paul, Marie Philippon-Fried, Bruce L. Nicholson, and Stuart Sherburne, "Piscine erythrocytic necrosis (PEN): A viral infection of the Atlantic cod and other marine fishes," 10:16
"(A) review of histopathological effects of selected contaminants on some marine organisms," by George R. Gardner, 10:51
"Review of oxygen depletion and associated mass mortalities of shellfish in the Middle Atlantic Bight in 1976," by Frank W. Steimle and Carl J. Sindermann, 12:17
Robohm, R. A., and C. Brown, "A new bacterium (presumptive *Vibrio* species) causing ulcers in flatfish," 10:5
Rockland, Steven, "The San Diego tuna industry and its employment impact on the local economy," 7:5
Rogers, W. A., "Parasitic diseases of freshwater fishes," 3:56
———, "The principal parasitic diseases of warm-water fishes," 10:36
Rohovec, J. S.—see Fryer et al.
Ronsivalli, Louis J., "Sharks and their utilization," 2:1
———, C. Gorga, J. D. Kaylor, and J. H. Carver, "A concept for assuring the quality of seafoods to consumers," 1:1
Ryan, John J., "Preparation of fish fillet blocks," 1:5

S

St. Lawrence Island, Alaska
whale, bowhead
1976 catch by Eskimos, 11:21
Salmon, marine cultured
vibriosis and furunculosis, Puget Sound, Washington
description of diseases, 3:52
diagnostic procedures, 3:53
disease observations, 1972-73, 3:53
drug sensitivity tests, 3:53
mortality assessments, 3:53
therapeutic treatment procedures, 3:53
Salmonids
immunization for control of vibriosis
bacterin, length of oral administration, 3:21, 22
bacterin administration and challenge, 3:20
bacterin concentration, 3:21, 22
bacterin preparation, 3:20
oral and injected bacterins, comparison,

3:21, 22
temperature effect on oral immunization, 3:21, 22
Puget Sound, Washington
vibriosis and vaccination procedures, 3:24
viruses and virus diseases of, 10:21
whirling disease, susceptibility studies, 10:30
San Diego
tuna industry
employment impact on the local economy, 7:5
"(The) San Diego tuna industry and its employment impact on the local economy," by Steven Rockland, 7:5
Sawyer, Evelyn S., "Vibriosis in Maine and New Hampshire salmonids," 10:9
Sawyer, Thomas K., and Sharon A. MacLean, "Some protozoan diseases of decapod crustaceans," 10:32
Scallop, bay
utilization
aquaculture, 11:9
biology, 11:3
harvesting, 11:5
history, 11:1
processing, 11:6, 7
Scallop, calico
utilization
aquaculture, 11:9
biology, 11:3
harvesting, 11:5
history, 11:2
processing, 11:6, 7
Scallop, Pacific sea
utilization
biology, 11:4
history, 11:2
Scallop, sea
resources, northeastern U.S. coast 1975, 2:19
utilization
aquaculture, 11:8
biology, 11:2
harvesting, 11:4
history, 11:1
processing, 11:6
quality problems, 11:8
"Scallops and their utilization," by John A. Peters, 11:1
Schachte, John H., Jr., "Immunization of channel catfish, *Ictalurus punctatus*, against two bacterial diseases," 3:18
Schwartz, Martin P.—see Ditton et al.
Sciaenids
trypanorhynch infections in, 10:37
"Sea scallop resources off the northeastern U.S. coast," by Clyde L. MacKenzie, Jr., Arthur S. Merrill, and Fredric M. Serchuk, 2:19
Seafood
concept for assuring quality to consumers, 1:1
"Seasonal effect on yield, proximate composition, and quality of blue mussel, *Mytilus edulis*, meats obtained from cultivated and natural stock," by Bohdan M. Slabyj, Donn L. Creamer, and Ruth H. True, 8:18
Seidel, Wilber R., and John W. Watson, Jr., "A trawl design: Employing electricity to selectively capture shrimp," 9:21
Serchuk, Fredric M.—see MacKenzie et al.
"Serological screening of channel catfish virus," by Stewart McConnell and Jack D. Austen, 3:30
Shad, American
Pacific Northwest commercial fishery
history, 2:29
Sharks
description and physical characteristics, 2:1
occurrence and habits, 2:1
relationship to man, 2:1
utilization, 2:1
"Sharks and their utilization," by Louis J. Ronsivalli, 2:1
Shellfish
oxygen depletion and mass mortalities in Middle Atlantic Bight in 1976
fish and shellfish stocks, 12:19
fish populations, effects on, 12:22
meteorological and hydrological events, 12:19
oxygen depletion, extent, 12:18
shellfish, effects on, 2:20
Shellfish diseases
arthropods, 3:62
bacterial, 3:62
environmentally related, 10:43
etiology unknown, 3:62
fungal, 3:62
hatchery operation studies, 3:62
helminthic, 3:62
larval nematodes parasitic in, 10:39
parasitic, 3:62, 10:26
testing bacterial pathogenicity, 3:63
viral, 3:61
"Shellfish diseases," by Louis Leibovitz, 3:61
Shellfish hatcheries
Long Island
bacteriologic studies, 10:8
Sherburne, Stuart—see Reno et al.
Shotts, Emmett B.—see Gratzek et al.
Shrimp
catches, two Gulf States
relationship between size composition and ex-vessel value, 2:14
Shrimp, brown
Texas and Louisiana catches
size composition, effect on ex-vessel value, 2:14
Shrimp, pink
preserved in carbon dioxide dissolved in refrigerated brine
bacteriological measurements, 9:25
CO_2 concentration, 9:27
pH, 9:26
refrigerated brine equipment, 9:25
salt concentration, 9:27
sensory evalutaion, 9:27
Shrimp, white
Texas and Louisiana catches
size composition, effect on ex-vessel value, 2:14
Shrimp fishery
catch-effort and price-cost trends in Gulf of Mexico
implications on Mexico's extended jurisdiction, 8:24
Shrimp industry, American
status and problems
jurisdictions, extended, 9:31
imports, 9:30
insurance rates, 9:31
operating costs, 9:30
overcapitalization, 9:30
Sidwell, Virginia D., Audrey L. Loomis, Karen J. Loomis, Pauline R. Foncannon, and David H. Buzzell, "Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. III. Microelements," 9:1
———, ———, Pauline R. Foncannon, and David H. Buzzell, "Composition of the edible portion of raw (fresh or frozen) crustaceans, finfish, and mollusks. IV. Vitamins," 12:1
Sigel, M. Michael, John C. Lee, E. Churchill McKinney, and Diana M. Lopez, "Cellular immunity in fish as measured by lymphocyte stimulation," 3:6
Sindermann, Carl J., "Environmentally related diseases of marine fish and shellfish," 10:43
————see also Steimle and Sindermann
Slabyj, Bohdan M., Donn L. Creamer, and Ruth H. True, "Seasonal effect on yield, proximate composition, and quality of blue mussel, *Mytilus edulis*, meats obtained from cultivated and natural stock," 8:18
Smolowitz, Ronald Joel, "Annotated bibliography on lobster trapping and related subjects," 5-6:68
———, "Trap design and ghost fishing: An overview," 5-6:2
———, "Trap design and ghost fishing: Discussion," 5-6:59
————see also Pecci et al.
Snieszko, S. F., "Bacterial diseases of fishes and their control," 10:2
———, "Control of fish diseases," 3:65
"Some protozoan diseases of decapod crustaceans," by Thomas K. Sawyer and Sharon A. MacLean, 10:32
Sprague, Victor, "Comments on trends in research on parasitic diseases of shellfish and fish," 10:26
Squid, shortfin
strandings in New England in fall 1976
catches by research vessel, 1:22
distribution and fishery, 1:21
estimating numbers stranded, 1:25
examining stranded squid, 1:23
reasons for strandings, 1:25
stranding reports, 1:22
strandings, past, 1:23
Stansby, Maurice E., "Charles Woods, pioneer scientist on chemical composition of fish," 7:1
———, "Flavors in fish from petroleum pickup," 1:13
"Status and problems of the American shrimp industry," by Roger W. Hutchinson, 9:29
"Status of the herring stocks fished by the Federal Republic of Germany fleet," by Holger Dornheim, 4:21
Steimle, Frank W., and Carl J. Sindermann, "Review of oxygen depletion and associated mass mortalities of shellfish in the Middle Atlantic Bight in 1976," 12:17
Stewart, James E., "Diseases and defense mechanisms of the lobster, *Homarus americanus*," 10:4
"Strandings of shortfin squid, *Illex illecebrosus*, in New England in fall 1976," by F. E. Lux, J. R. Uzmann, and H. F. Lind, 1:21
Sturgeon
Pacific Northwest commercial fishery, 7:17
"Susceptibility studies of various salmonids to whirling disease: Histological staining and spore concentration procedures," by Joseph O'Grodnick, 10:30

T

Teleosts
liver, PCB-induced alterations in, 10:47
Texas
fishermen, charter boat
characteristics, participation, and motivation, 8:8
Gulf Coast
charter boat fishing industry, 8:1
shrimp catches
size composition, effect on ex-vessel value, 2:14
"Trap design and ghost fishing: An overview," by Ronald Joel Smolowitz, 5-6:2
"Trap design and ghost fishing: Discussion," by Ronald Joel Smolowitz, 5-6:59
Traps, lobster
annotated bibliography on, and related sub-

jects, 5-6:68
design and ghost fishing
availability and catchability, 5-6:62
bait, 5-6:63
behavior, 5-6:63
biological deterioration, 5-6:61
catch escape panels, 5-6:65
corrosion, 5-6:61
destruction by dragged gear, 5-6:62
effort, reduced, 5-6:65
escape vents, 5-6:7
escape vents, sublegal, 5-6:65
escapement, 5-6:62
factors affecting ghost fishing, 5-6:5
fishery, 5-6:2
habipots, 5-6:66
head design, 5-6:60
injury and mortality, 5-6:63
lobster range, 5-6:2
loss assessemnt, 5-6:64
loss cutting, 5-6:65
management, 5-6:3
materials, 5-6:60
pots, number lost, 5-6:59
preventing and decreasing ghost fishing, 5-6:6
sections, degradable, 5-6:65
set-over days, 5-6:62
shape, 5-6:59
size, 5-6:59
storm surge, 5-6:61
substrate burial, 5-6:62
escape vents
ghost fishing, 5-6:11
selectivity, 5-6:50
ghost fishing of vented and unvented
catch gear distribution, 5-6:10
description of trawls and pots, 5-6:11
environmental monitoring, 5-6:13
ghost-pot catch, 5-6:17
ghost-pot trawls, surveying, 5-6:12
natural population, 5-6:13
pot trawls, setting and hauling of surface-buoyed, 5-6:11
study area, 5-6:9
surface-hauled pot catch, 5-6:14
timed release mechanisms
release mechanism, 5-6:44, 45, 49
release method, 5-6:44, 48
release timer, 5-6:44, 45
"(A) trawl design: Employing electricity to selectively capture shrimp," by Wilber R. Seidel and John W. Watson, Jr., 9:21
Trawl, shrimp
employing electricity to selectively capture
electrical fishing technology, recent advances, 9:22
webbing panel type separator trawls, 9:21
True, Ruth H.—see Slabyj et al.
Trypanorhynch infections
sciaenid flesh, 10:37
"Trypanorhynch infections in the flesh of sciaenid fishes," by Robin M. Overstreet, 10:37
Tuna industry
San Diego
employment impact on the local economy, 7:5
Turtle, green sea
herpesvirus disease
clinical and histological picture, 3:34
farm facilities and operations, 3:33
gray-patch disease development, 3:36
isolation attempts, 3:37
presence of virus in lesions, 3:35
temperature effect, 3:36
transmission studies, 3:35
vaccination attempts with virus, 3:37
virus origin, 3:36

U

Udey, Lanny R., "Anaerobic bacteria as possible disease agents in fish," 10:10
———, and J. L. Fryer, "Immunization of fish with bacterins of *Aeromonas salmonicida*," 3:12
United States
northeastern coast, 1975
sea scallop resources, 2:19
west coast
oceanographic conditions, summer 1977, 2:24
United States, south-central
warmwater fish farms
disease incidence, 3:38
"Use of carbon dioxide dissolved in refrigerated brine for the preservation of pink shrimp (*Pandalus* spp.)" by Harold J. Barnett, Richard W. Nelson, Patrick J. Hunter, and Herman Groninger, 9:24
Uzmann, J. R.—see Lux et al.

V

Vaccine
development and immunity
bacterial, inactivated, 3:23
bacterial, modified live, 3:3
cell line, stable, 3:4
fish vaccines, 3:4
immunity type, 3:2
inactivated vs. live, 3:2
vaccine types, 3:2
viral, 3:3
Vancouver Island
oceanographic conditions, summer 1977, 2:24
Vibrio species, presumptive
ulcer cause in flatfish, 10:5
Vibriosis
immunization of salmonids for control, 3:20
Puget Sound, Washington
salmon, marine cultured, 3:52
salmon vaccination procedures, 3:24
salmonids
Maine and New Hampshire, 10:9
"Vibriosis and current salmon vaccination procedures in Puget Sound, Washington," by Lee W. Harrel, 3:24
"Vibriosis and furunculosis in marine cultured salmon in Puget Sound, Washington," by Anthony J. Novotny, 3:52
"Vibriosis in Maine and New Hampshire salmonids," by Evelyn S. Sawyer, 10:9
Viral diseases
catfish, channel
phosphonoacetic acid inhibition of, 10:24
Cod, Atlantic
piscine erythrocytic necrosis (PEN), 10:16
crab, blue, 10:13
mollusks, marine, 10:18
salmonids, 10:21
"Viral diseases of the blue crab, *Callinectes sapidus*," by Phyllis T. Johnson, 10:13
Virgin Islands
Portunus spinimanus
resource potential, 7:12
Virus research
channel catfish
recent developments, 10:12
"Viruses and virus diseases of salmonid fishes," by Philip E. McAllister, 10:21
"Viruses and viruslike lesions in marine mollusks," by C. Austin Farley, 10:18

W

Wainwright, Alaska
whale, bowhead
1976 catch by Eskimos, 11:23
Wales, Alaska
whale, bowhead
1976 catch by Eskimos, 11:22
Washington
American shad, history of commercial fishery, 2:29
oceanographic conditions, summer 1977, 2:24
Water reuse systems
environmental parameters affecting fish physiology, 10:46
Watson, John W., Jr.—see Seidel and Watson
West Indies
fish traps, mesh selectivity of, 7:15
Whale, bowhead
1976 catch by Alaskan Eskimos
autumn whaling, 11:25
effort, 11:23
spring whaling, 11:21
utilization, 11:20
whaling methods, 11:19
Whirling disease
salmonids, susceptibility studies of, 10:30
Woods, Charles
chemical composition of fish, 7:1
Woods, Steve A.—see Ditton et al.

X, Y, Z

Xiphiidae—Swordfishes, 9:17

Papers in *Marine Fisheries Review*

Volume 40, Numbers 1-12, 1978

JANUARY

1276. "A Concept for Assuring the Quality of Seafoods to Consumers," L. J. Ronsivalli, C. Gorga, J. D. Kaylor, and J. H. Carver, 1:1-4.
1277. "Preparation of Fish Fillet Blocks," John J. Ryan, 1:5-12.
1278. "Flavors in Fish From Petroleum Pickup," Maurice E. Stansby, 1:13-17.
1279. "The Pacific Northwest Commercial Fishery for Striped Bass, 1922-74," Norman B. Parks, 1:18-20.
1280. "Strandings of Shortfin Squid, *Illex illecebrosus*, in New England in Fall 1976," F. E. Lux, J. R. Uzmann, and H. F. Lind, 1:21-26.

FEBRUARY

1281. "Sharks and Their Utilization," Louis J. Ronsivalli, 2:1-13.
1282. "Relationship Between Size Composition and Ex-Vessel Value of Reported Shrimp Catches From Two Gulf Coast States With Different Harvesting Strategies," Charles W. Caillouet and Frank J. Patella, 2:14-18.
1283. "Sea Scallop Resources off the Northeastern U.S. Coast, 1975," Clyde L. MacKenzie, Jr., Arthur S. Merrill, and Fredric M. Serchuk, 2:19-23.
1284. "Oceanographic Conditions off California to Vancouver Island in the Summer of 1977," W. James Ingraham, Jr. and Cuthbert M. Love, 2:24-28.

1285. "The Pacific Northwest Commercial Fishery for American Shad," Norman B. Parks, 2:29-31.

MARCH

1286. "Immunity and Practical Vaccine Development," Albert L. Brown, 3:2-5.
1287. "Cellular Immunity in Fish as Measured by Lymphocyte Stimulation," M. Michael Sigel, John C. Lee, E. Churchill McKinney, and Diana M. Lopez, 3:6-11.
1288. "Immunization of Fish With Bacterins of *Aeromonas salmonicida*," L. R. Udey and J. L. Fryer, 3:12-17.
1289. "Immunization of Channel Catfish, *Ictalurus punctatus*, Against Two Bacterial Diseases," John H. Schachte, Jr., 3:18-19.
1290. "Immunization of Salmonids for Control of Vibriosis," J. L. Fryer, J. S. Rohovec, and R. L. Garrison, 3:20-23.
1291. "Vibriosis and Current Salmon Vaccination Procedures in Puget Sound, Washington," Lee W. Harrell, 3:24-25.
1292. "Epizootiology of Channel Catfish Virus Disease," John A. Plumb, 3:26-29.
1293. "Serological Screening of Channel Catfish Virus," Stewart McConnell and Jack D. Austen, 3:30-32.
1294. "A Herpesvirus Disease of Green Sea Turtles in Aquaculture," Harold Haines, 3:33-37.
1295. "Incidence of Disease in Warmwater Fish Farms in the South-Central United States," F. P. Meyer, 3:38-41.
1296. "Enteric Red Mouth Disease (Hagerman Strain)," R. A. Busch, 3:42-51.
1297. "Vibriosis and Furunculosis in Marine Cultured Salmon in Puget Sound, Washington," Anthony J. Novotny, 3:52-55.
1298. "Parasitic Diseases of Freshwater Fishes," W. A. Rogers, 3:56-57.
1299. "Ornamental Fish: Diseases and Problems," John B. Gratzek, Emmett B. Shotts, and Jack L. Blue, 3:58-60.
1300. "Shellfish Diseases," Louis Leibovitz, 3:61-64.
1301. "Control of Fish Diseases," S. F. Snieszko, 3:65-68.
1302. "Fish Disease Inspection and Certification," Diane Elliott, 3:69-71.

APRIL

1303. "Eels and Their Utilization," J. Perry Lane, 4:1-20.
1304. "Status of the Herring Stocks Fished by the Federal Republic of Germany Fleet," Holger Dornheim, 4:21-24.
1305. "Economic Aspects of the Development of the Herring Roe Gillnet Fishery, Southeastern Alaska, 1976," Howard O. Ness, 4:25-30.

MAY-JUNE

1306. "Trap Design and Ghost Fishing: An Overview," Ronald Joel Smolowitz, 5-6: 2-8.
1307. "Ghost Fishing of Vented and Unvented Lobster, *Homarus americanus*, Traps," K. J. Pecci, R. A. Cooper, C. D. Newell, R. A. Clifford, and R. J. Smolowitz, 5-6:9-43.
1308. "A Preliminary Study of Timed Release Mechanisms for Lobster Traps," Alan J. Blott, 5-6:44-49.
1309. "The Effects of Different Escape Vents on the Selectivity of Lobster Traps," Vernon E. Nulk, 5-6:50-58.
1310. "Trap Design and Ghost Fishing: Discussion," Ronald Joel Smolowitz, 5-6:59-67.
1311. "Annotated Bibliography on Lobster Trapping and Related Subjects," Ronald Joel Smolowitz, 5-6:68-77.

JULY

1312. "Charles Woods, Pioneer Scientist on Chemical Composition of Fish," Maurice E. Stansby, 7:1-4.
1313. "The San Diego Tuna Industry and Its Employment Impact on the Local Economy," Steven Rockland, 7:5-11.
1314. "*Portunus spinimanus* Latreille, a Portunid Crab With Resource Potential in the U.S. Virgin Islands," David A. Olsen, Arthur E. Dammann, and Joseph A. LaPlace, 7:12-14.
1315. "Mesh Selectivity of West Indian Fish Traps," David A. Olsen, Arthur E. Dammann, and Joseph A. LaPlace, 7:15-16.
1316. "The Pacific Northwest Commercial Fishery for Sturgeon," Norman B. Parks, 7:17-20.
1317. "The Atlantic Halibut and Its Utilization," J. T. R. Nickerson, 7:21-25.

AUGUST

1318. "An Analysis of the Charter Boat Fishing Industry on the Texas Gulf Coast," Robert B. Ditton, Richard N. Jarman, and Steve A. Woods, 8:1-7.
1319. "Characteristics, Participation, and Motivations of Texas Charter Boat Fishermen," Robert B. Ditton, Thomas J. Mertens, and Martin P. Schwartz, 8:8-13.
1320. "Preparation of a Menhaden Hydrolysate for Possible Use in a Milk Replacer," Malcolm B. Hale and Paul E. Bauersfeld, Jr., 8:14-17.
1321. "Seasonal Effect on Yield, Proximate Composition, and Quality of Blue Mussel, *Mytilus edulis*, Meats Obtained From Cultivated and Natural Stock," Bohdan M. Slabyj, Donn L. Creamer, and Ruth H. True, 8:18-23.
1322. "Catch-Effort and Price-Cost Trends in the Gulf of Mexico Shrimp Fishery: Implications on Mexico's Extended Jurisdiction," Vito Blomo, Wade L. Griffin, and John P. Nichols, 8:24-28.
1323. "Estimating the Structure of Capacity Utilization in the Fishing Industry," Kenneth Ballard and Vito Blomo, 8:29-34.

SEPTEMBER

1324. "Composition of the Edible Portion of Raw (Fresh or Frozen) Crustaceans, Finfish, and Mollusks. III. Microelements," Virginia D. Sidwell, Audrey L. Loomis, Karen J. Loomis, Pauline R. Foncannon, and David H. Buzzell, 9:1-20.
1325. "A Trawl Design: Employing Electricity to Selectively Capture Shrimp," Wilber R. Seidel and John W. Watson, Jr., 9:21-23.
1326. "Use of Carbon Dioxide Dissolved in Refrigerated Brine for the Preservation of Pink Shrimp (*Pandalus* spp.)," Harold J. Barnett, Richard W. Nelson, Patrick J. Hunter, and Herman Groninger, 9:24-28.
1327. "Status and Problems of the American Shrimp Industry," Roger W. Hutchinson, 9:29-31.

OCTOBER

1328. "Bacterial Diseases of Fishes and Their Control," S. F. Snieszko, 10:2-3.
1329. "Diseases and Defense Mechanisms of the Lobster, *Homarus americanus*," James E. Stewart, 10:4.
1330. "A New Bacterium (Presumptive *Vibrio* Species) Causing Ulcers in Flatfish," R. A. Robohm and C. Brown, 10:5-7.
1331. "Bacteriologic Studies of Long Island Shellfish Hatcheries," Louis Leibovitz, 10:8.
1332. "Vibriosis in Maine and New Hampshire Salmonids," Evelyn S. Sawyer, 10:9.
1333. "Anaerobic Bacteria as Possible Disease Agents in Fish," Lanny R. Udey, 10:10-11.
1334. "Recent Development in Channel Catfish Virus Research," J. A. Plumb and P. R. Bowser, 10:12.
1335. "Viral Diseases of the Blue Crab, *Callinectes sapidus*," Phyllis T. Johnson, 10:13-15.
1336. "Piscine Erythrocytic Necrosis (PEN): A Viral Infection of the Atlantic Cod and Other Marine Fishes," Paul Reno, Marie Philippon-Fried, Bruce L. Nicholson, and Stuart Sherburne, 10:16-17.
1337. "Viruses and Viruslike Lesions in Marine Mollusks," C. Austin Farley, 10:18-20.
1338. "Viruses and Virus Diseases of Salmonid Fishes," Philip E. McAllister, 10:21-23.
1339. "Phosphonoacetic Acid Inhibition of Channel Catfish Virus Replication," Roger W. Koment, 10:24-25.
1340. "Comments on Trends in Research on Parasitic Diseases of Shellfish and Fish," Victor Sprague, 10:26-29.
1341. "Susceptibility Studies of Various Salmonids to Whirling Disease: Histological Staining and Spore Concentration Procedures," Joseph O'Grodnick, 10:30-31.
1342. "Some Protozoan Diseases of Decapod Crustaceans," Thomas K. Sawyer and Sharon A. MacLean, 10:32-34.
1343. "The Principal Parasitic Diseases of Warmwater Fishes," W. A. Rogers, 10:35-36.
1344. "Trypanorhynch Infections in the Flesh of Sciaenid Fishes," Robin M. Overstreet, 10:37-38.
1345. "Larval Nematodes Parasitic in Shellfish," Thomas C. Cheng, 10:39-42.
1346. "Environmentally Related Diseases of Marine Fish and Shellfish," Carl J. Sindermann, 10:43
1347. "Nutrient Requirement of the Lobster and Nutrition Pathology," Robert C. Bayer, Margie Lee Gallagher, and Dale F. Leavitt, 10:44.
1348. "Nutritionally Induced Cataracts in Salmonids Fed Purified and Practical Diets," Hugh A. Poston, Ronald C. Riis, Gary L. Rumsey, and H. George Ketola, 10:45
1349. "Environmental Parameters Affecting Fish Physiology in Water Reuse Systems," Thomas L. Meade, 10:46
1350. "PCB-Induced Alterations in Teleost Liver: A Model for Environmental Disease in Fish," David E. Hinton, James E. Klaunig, and Michael M. Lipsky, 10:47-50.
1351. "A Review of Histopathological Effects of Selected Contaminants on Some Marine Organisms," George R. Gardner, 10:51-52.

NOVEMBER

1352. "Scallops and Their Utilization," John A. Peters, 11:1-3.
1353. "Blue Crab Larval Culture: Methods and Management," Mark R. Millikin, 11:10-17.
1354. "The 1976 Catch of Bowhead Whales, *Balaena mysticetus*, by Alaskan Eskimos," Willman M. Marquette, 11:18-27.

DECEMBER

1355. "Composition of the Edible Portion of Raw (Fresh or Frozen) Crustaceans, Finfish, and Mollusks. IV. Vitamins," Virginia D. Sidwell, Audrey L. Loomis, Pauline R. Foncannon, and David H. Buzzell, 12:1-16.
1356. "Review of Oxygen Depletion and Associated Mass Mortalities of Shellfish in the Middle Atlantic Bight in 1976," Frank W. Steimle and Carl J. Sindermann, 12:17-26.